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Disability-policy models in European welfare regimes: comparing the distribution of social protection, labour-market integration and civil rights

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ABSTRACT

This paper examines different models of disability policy in European welfare regimes on the basis of secondary data. OECD data measuring social protection and labour-market integration is complemented with an index which measures the outcomes of disability civil rights. Eurobarometer data is used to construct the index. The country modelling by cluster analysis indicates that an encompassing model of disability policy is mainly prevalent in Nordic countries. An activating and rehabilitating disability-policy model is predominant mainly in Central European countries, and there is evidence for a distinct Eastern European model characterized by relatively few guaranteed civil rights for disabled people. Furthermore, the Southern European model, which indicates a preference for social protection rather than activation and rehabilitation, includes countries which normally have diverse welfare traditions.

KEYWORDS

disability policy; welfare state regimes; comparative analysis; social policy; equal rights

Points of interest

• Much is written about links between capitalism and the modern concept of disability, but little research has compared disability policy across different types of welfare capitalism.

• Research has measured and compared social protection and labour-market integration for disabled people in member countries of the Organisation for Economic Co-operation and Development.

• There are theoretical claims that disability civil rights form a third dimension of a welfare state's disability policy; therefore, the authors of this article use self-reported perceptions of discrimination and accessibility to compute an index of disability civil rights.

• Including all three dimensions, the analysis suggests that European welfare regimes have four distinct disability-policy models.

• For disability studies, it is helpful to see that some countries are committed to all three dimensions of disability policy without any trade-offs.

Introduction

In industrialized western countries between one in five and one in seven people live with a disability or chronic illness (OECD 2010, 22). To avoid an individualistic view of this figure, one can take into account the historic role of the capitalist state in relation to disability. According to Oliver and Barnes (2012, 16) the implementation of 'individualized wage labour' during the beginning of industrialization initiated today's category. Changing social relationships, new ways of governing people and the burgeoning medical profession paved the way for establishing disability as an 'individualized medical problem' (2012, 16). According to Roulstone and Prideaux (2012, 9–11) the emergence of the welfare state did have a significant impact on the concept of disability. Nowadays, the disability category has a strong welfare state dimension and the category is the fundament of a need-based distribution system (Stone 1984, 21), and there is the significant danger of marginalization from the labour market for disabled people (Barnes and Mercer 2005, 541).

Current welfare states are quite heterogeneous, but in this heterogeneity, there are different worlds or regimes with similarities: this is one of the main messages of Esping-Andersen's (1990) *Three Worlds of Welfare Capitalism* typology. According to Esping-Andersen (1990), there are liberal (Anglo-Saxon), conservative-corporatist (Central European) and social-democratic (Nordic) welfare regimes. Linked with this theory is a significant amount of criticism, including further developments and extensions (Van Kersbergen 2013). A strong strand of criticism is connected with the theory's gender blindness (for example, Bambra 2007; Gálvez-Muñoz, Rodríguez-Modroño, and Domínguez-Serrano 2011; Lewis 1997; Orloff 1993; Sainsbury 1994). Furthermore, there are claims that Southern European countries (for example, Ferrera 1996) and Eastern European countries (for example, Aidukaite 2009) both form a distinct welfare state type as well. Nevertheless, the typology still seems to be a good starting point for detecting different worlds of welfare, and it may be fruitful for the comparison of disability policies.

Defining the content of a disability policy for comparative purposes is a challenge because disability policy can be seen as a mix of 'redistributive and social regulatory provisions' (Hvinden 2013, 376). Maschke (2004) undertook preliminary work for handling this challenge; this work is in line with claims of gender studies, such as that Esping-Andersen's (1990) concept of decommodification (social protection) is not sufficient for specific social policy fields. Decommodification refers to the degree to which people can 'uphold a socially acceptable standard of living' without being forced to sell their own labour as a commodity (Esping-Andersen1990, 37). According to Waldschmidt (2011, 69–71) disability policy also has a strong component of labour-market integration, which comprises commodification per se, recommodification and quasi-commodification. Having in mind a specific part of disability policy, Gal (2004, 57) claims that the concept of decommodification has to be extended through support for 'self-development'. Overall, it cannot be ignored that current developments in disability policy clearly tend towards rights-based approaches (Priestley 2010, 419). To reduce complexity, Maschke (2004) proposes that disability policy is consistent with three dimensions: social protection, labour-market integration and civil rights.

A body of empirical literature compares the disability policies of more than two welfare regimes, either within a three-dimensional framework (Maschke 2008; Waldschmidt 2009) or with a larger recognition of a redistributive and regulative mix (Barnes 2000; Cohu, Lequet-Slama, and Velche 2005; Drake 1999; Hvinden 2003). Interestingly, another important observer's approach (OECD 2010, 2003) also reduces the complexity of disability policy to its

meta-dimensions, but it operationalizes only two of them: social protection and labour-market integration.

With regard to disability-policy regimes, two studies (Waldschmidt 2009; OECD 2010) are of particular interest. Both have connections to Esping-Andersen's (1990) theory. Waldschmidt (2009) combines this theory with the three-dimensional framework of Maschke (2004). Waldschmidt (2009) deductively develops a matrix as a heuristic tool to describe how welfare regimes favour the three possible dimensions.

The matrix (2009, 20) indicates that the liberal regime's strongest dimension is that of civil rights, with labour-market integration in the middle and social protection as the weakest dimension. Furthermore, the matrix suggests that labour-market integration is the strongest dimension in the conservative-corporatist welfare regime; social protection comes second and civil rights third. Finally, it points out that, in the social democratic regime, social security is most pronounced; civil rights follow, and labour-market integration comes last (2009, 20). On the contrary, the OECD (2010) inductively finds a link to Esping-Andersen (1990). In 2010, an Organisation for Economic Co-operation and Development (OECD) report operationalized disability social security and disability labour-market integration. This operationalization is in line with a prior publication (OECD 2003). Both reports (OECD 2003, 2010) included a cluster analysis. While the first comparative study (OECD 2003, 129) finds early indications of distinct disability-policy regimes, the second publication (OECD 2010, 88) finds that there is a strong overlap between the cluster results and the welfare types of Esping-Andersen (1990). According to the OECD (2010), the division of the countries' disability policies fit within the countries' expected welfare regimes – although Germany, Switzerland and Ireland are exceptions.

Waldschmidt (2009) provides an in-depth analysis that gives meaningful insight into the relationship between a welfare regime and its disability-policy orientation, but the argument relies on a qualitative document analysis and therefore a quantitative comparison of the distribution of the dimension relative to that of other countries is not possible. Because it has another structure, the data provided by the OECD (2010) allow this kind of quantitative modelling approach. One question that needs to be asked, however, is whether the dimension of civil rights should be included and whether this would have an impact on the modelling results.

This article seeks to complement the data of the OECD (2010) by adding the dimension of civil rights. Furthermore, the article intends to apply a cluster analysis (including data from all three dimensions) so that it is conducive to disability-policy modelling. For this purpose, the article is divided into different parts. After this introduction, the second part lays out the three dimensions. The third part lays out the methods that are used for indexing the civil rights dimension and for the cluster analysis. The fourth part presents the results. The fifth part includes a discussion of the results and a critical assessment of the limitations of this quantitative approach.

The three dimensions of disability policy

The classification of disability policies in our analysis is inspired by Maschke (2004), Waldschmidt (2009, 20) and OECD (2010), and includes three dimensions: social protection, labour-market integration and social rights. Although being aware of touching important

political and academic debates,[1] the understanding of the three dimensions is not a fully theoretically deliberated understanding but rather is primarily data driven.

The dimension of social protection includes the question of the universality of entitlements, the required work incapacity level for entitlements, the extent of the payment level, the permanence of benefits, medical assessment criteria, vocational assessment criteria, sickness benefit levels, and durations and information on sickness absence monitoring (OECD 2010, 99).

The dimension of labour-market integration includes the question of consistency across support and coverage rules, the complexity of benefit and support systems, the employer's obligations, the existence of supported, subsidized and sheltered employment programmes, information on the comprehensiveness and timing of vocational rehabilitation, and information on the existence of a benefit suspension option and work incentives (OECD 2010, 100).

The dimension of civil rights contains, according to Maschke (2004, 410), anti-discrimination laws, equality laws, building codes and regulations with regard to public transport and communication. The index is constructed with a selection of Eurobarometer questions, which seem to measure the outcomes of this dimension. Table 1 presents these questions in detail.

Table 1: The construction of the index

Discrimination Eurobarometer		Accessibility Eurobarometer		
Question[1]:	*Question[2]:*	*Question[3]:*	*Question[4]:*	*Question[5]:*
For each of the following types of discrimination, could you please tell me whether, in your opinion, it is very widespread, fairly widespread, fairly rare or very rare in (OUR COUNTRY)? Discrimination on the basis of…	And using a scale from 1 to 10, please tell me how you would feel about having someone from each of the following categories in the highest elected political position in (OUR COUNTRY)? '1' means that you would feel "totally uncomfortable" and '10' that you would feel "totally comfortable".	Have you and/or someone from your household who has some kind of disability ever experienced difficulties in any of the following:	Have you and/or someone from your household who has some kind of disability ever experienced difficulties in any of the following:	Have you and/or someone from your household who has some kind of disability ever experienced difficulties in any of the following:
Disability	A person with a disability	Taking a taxi/bus/train/flight	Entering into a building or an open public space	Voting in the election
Possible answers:	*Possible answers:*	*Possible answers (similar for all three questions):*		
Very Widespread = a Fairly Widespread = b Fairly rare = c Very rare = d Non-existent = e	Total Uncomfortable (1-4) = a Total Fairly comfortable (5-6) = b Total comfortable (7-10) = c	Most of the time = a From time to Time = b Almost never/never = c		
Calculation (with % of answers):	*Calculation (with % of answers):*	*Calculation (with % of answers):*		
$1-\frac{4a+3b+2c+d}{400}$	$1-\frac{2a+b}{200}$	$1-\frac{2a+b}{200}$		
Disability Civil Rights Index = sum of all five calculations				

1 Data from Eurobarometer (2012b, T6 in Annex)
2 Data from Eurobarometer (2012b, T33 in Annex)
3 Data from Eurobarometer (2012a, T8 in Annex)
4 Data from Eurobarometer (2012a, T9 in Annex)
5 Data from Eurobarometer (2012a, T13 in Annex)

[1] We do not want to imply that social protection and labour-market integration are deliberated denominations, having in mind that speaking about social rights or labour market rights could have a more appropriate meaning. We chose these terms in order to have a denomination in line with Waldschmidt (2009, 20) and Maschke (2004). With our understanding of civil rights, we do not want to imply that we are following a certain liberal argument, such as that the provision of civil rights is the sufficient obligation a state has vis-à-vis its citizens.

Methods

Index: civil rights

Instead of applying advanced endeavours for comparing and monitoring disability rights (for example, Lawson and Priestley 2013; Quinn and Flynn 2012; Waddington and Lawson 2009; Waddington, Quinn, and Flynn 2015), we chose a simpler approach with the aim of computing a civil rights index. According to Maschke (2004, 410), the disability civil rights dimension implies two main components: anti-discrimination and accessibility. At the level of the European Union, data sources capture disability components; these include Special or Flash Eurobarometer surveys (Van Oorschot et al. 2009). Recently, a Special Eurobarometer survey focused on discrimination (Eurobarometer 2012b), and a Flash Eurobarometer survey focused on accessibility (Eurobarometer 2012a). The Eurobarometer surveys provide data for every member country of the European Union; they are conducted on behalf of the European Commission. The data allow an index to be constructed. This indexing approach is chosen because it allows for the bundling of single information items, thus reducing complexity while simultaneously remaining multidimensional (Pickel and Pickel 2012, 2). Furthermore, survey data can be used for comparative research on welfare regimes (for example, Gálvez-Muñoz, Rodríguez-Modroño, and Domínguez-Serrano 2011; Van Oorschot 2013).

Table 1 shows the construction of the index. The Discrimination Eurobarometer asks about the views and attitudes of a representative sample of the total population. The Accessibility Eurobarometer asks disabled people or their household members about their experiences with (non-)accessibility. The index is constructed from values for five questions. The first focuses on general feelings of discrimination against disabled people, and the second examines how the respondents would feel if a disabled person was elected to the highest political office. The final three questions assess disabled people's accessibility to transport, public buildings and elections. The results of the five questions form a summative index between five (referring to perfect accessibility and no discrimination) and zero (referring to no accessibility and absolute discrimination).

This approach has its limitations. One has to consider that the Eurobarometer data have a relatively low number of respondents (generally around 1000 people per country). Second, survey data can only measure policy outcomes. Therefore, high index values may not be entirely due to specific disability legislation; further reasons for different outcomes cannot be ruled out. On the other hand, the fact that the Accessibility Eurobarometer surveys disabled people or their household members provides an advantage: this index, which is about disabled people's civil rights, is not completely constructed without disabled people's voices.

Indexes: social protection and labour-market integration

The OECD (2010) operationalizes social protection and labour-market integration with data from 2007. Both dimensions' policy provisions and instruments are operationalized with a summative classification of 10 sub-dimensions. The mean of each score is between zero and five, with a high score indicating a strong occurrence of the dimension and a low score indicating a weak occurrence (OECD 2010, 85). These data can be compared with the constructed index, which also has a score between zero and five. The combination of the index data and the OECD data implies a reduction of the countries in the sample. Out of the initial index sample, which consisted of 27 EU countries, only 19 are also part of the OECD (2010)

report.[2] Furthermore, one has to consider that the data come from different sources and are computed differently. The civil rights dimension has a higher mean value, and the variance differs. Therefore, with the objective of better comparability, the data are Z-transformed for further calculations. Z-transformation is a statistical method with the aim of the standardization of data. After a Z-transformation the data are normally distributed, and Z-transformed data from different sources can therefore be compared better. Working with *Z*-scores is common in cluster analysis (Bambra 2007; Gough 2001; Obinger and Wagschal 1998).

Cluster analysis

The goal of cluster analysis is to detect structural similarities in the index values of the countries in our sample. The method puts the countries into distinct groups: countries with similar index values get grouped into the same cluster whereas countries with dissimilar values are put into different clusters. We use cluster analysis to find different models of how European nations combine the three dimensions of disability policy. Cluster analysis is often used in comparing welfare regimes (for example, Bambra 2007; Gálvez-Muñoz, Rodríguez-Modroño, and Domínguez-Serrano 2011; Gough 2001; Obinger and Wagschal 1998; OECD, 2010, 2003). According to recommendations (Bambra 2007, 330–335; Gough 2001, 165), a hierarchical cluster should be combined with a *k*-means cluster analysis. A hierarchical cluster analysis is helpful in deducing the appropriate number of clusters. The method can help to detect how many distinct groups of countries can be drawn. The determining procedure for the appropriate number of clusters has to do with the basic criteria of cluster analysis: the cluster solution simultaneously has an appropriate homogeneity within clusters and the greatest possible heterogeneity between clusters (Schendera 2010, 17). The method has, as a starting point, an allocation of each individual case as a separate cluster; subsequently, cases with the smallest distance (greatest similarity) are merged (2010, 23). This procedure is continued until *n* cases (after *n* – 1 steps) are merged into a single cluster (2010, 23). The procedure is hierarchical because the steps are carried out in sequence and because, if a case is classified, it stays in place.

On the other hand, the *k*-means cluster analysis is partitioned and based on a predefined number of clusters (Schendera 2010, 117–118). The method can help to detect the specificities of the distinct groups of countries. There are a number of clusters, called *k*, and cluster centres, called *k*-means. The number of clusters is determined by the researcher at the beginning of the process. Within the process an algorithm first searches for *k* initial values and calculates the inclusion of the cases' centroids (means). The procedure of defining the centroid and recalculating it with the inclusion of the cases is iterated many times until no further changes occur in the values of the centroids (2010, 117–118). The cases' membership is defined by their positions relative to the nearest final cluster centre (final centroid). Unlike in the hierarchical cluster analysis, the distance to their neighbours does not play a role in the definite *k*-means classification.

The hierarchical cluster analysis helps to find a good solution with regard to the trade-off between intracluster homogeneity and intercluster heterogeneity because the distances in the merging process can be observed. Because the hierarchical cluster analysis is to some extent 'atheoretical', a combination with a *k*-means cluster analysis is recommended (Bambra 2007, 329). Furthermore, *k*-means cluster also offers the possibility of checking a different

[2] The 19 EU countries in both primary data sources are Austria, Belgium, France, Germany, Italy, the Netherlands, Poland, Portugal, Spain, Sweden, the United Kingdom, the Czech Republic, Finland, Greece, Hungary, Ireland, Luxembourg, Slovakia and Denmark.

number of clusters to observe the stability of the results with regard to an alternative number of clusters (Gough 2001, 165).

Results

Index: civil rights

Table 2 presents the summative index,[3] organized by descending values. The table includes values for all 27 countries in the Eurobarometer (2012a, 2012b) surveys. The highest scores are those for Malta, Sweden and Denmark. Hungary, Slovakia and Cyprus have the lowest scores.

Table 2: Disability Civil Rights Index

Malta	4.09
Sweden	3.95
Denmark	3.88
Germany	3.79
Luxembourg	3.78
Ireland	3.77
The Netherlands	3.75
Poland	3.73
Spain	3.73
Romania	3.70
Slovenia	3.69
Finland	3.67
Austria	3.54
The United Kingdom	3.52
Lithuania	3.51
France	3.50
Latvia	3.49
Estonia	3.48
Bulgaria	3.45
Portugal	3.45
Italy	3.43
Greece	3.41
Belgium	3.37
Czech Republic	3.22
Republic of Cyprus	3.11
Slovakia	2.99
Hungary	2.95

Cronbach's Alpha: 0.72

[3] Cronbach's alpha measures the internal consistency of the index. Because the index variables are aimed to measure the same overarching construct (disability civil rights), they should correlate with one another. A Cronbach's alpha value above 0.7 is considered satisfactory (for example, Bland and Altman 1997), so this comparison's Cronbach's alpha of 0.72 is an indication that its internal consistency can be considered satisfactory even though the data come from two different Eurobarometer surveys.

Indexes: social protection and labour-market integration

Table 3 presents the index scores for social protection and labour-market integration for the 19 countries in the OECD report (2010, 101–102). For better comparability of the three dimensions, the disability civil rights values are also included.

Table 3: Combining Data

	Social protection[1]	Labour market integration[2]	Civil rights[3]
Austria	2.4	3.0	3.54
Belgium	2.5	2.4	3.37
Czech R.	2.4	2.1	3.22
Denmark	2.8	3.7	3.88
Finland	3.2	3.2	3.67
France	2.5	2.6	3.50
Germany	3.2	3.5	3.79
Greece	2.5	1.6	3.41
Hungary	2.8	2.8	2.95
Ireland	2.6	1.7	3.77
Italy	2.6	1.8	3.43
Luxembourg	2.8	2.4	3.78
Netherlands	2.4	3.5	3.75
Poland	2.5	2.2	3.73
Portugal	3.3	1.6	3.45
Slovakia	2.6	2.1	2.99
Spain	2.7	2.2	3.73
Sweden	3.7	3.2	3.95
U. Kingdom	2.1	3.2	3.52

1 Data: mean from compensation policy dimension score (OECD 2010, 101)
2 Data: mean from integration policy dimension score (OECD 2010, 102)
3 Data: own calculations (see Table 1 and Table 2)

Cluster analysis

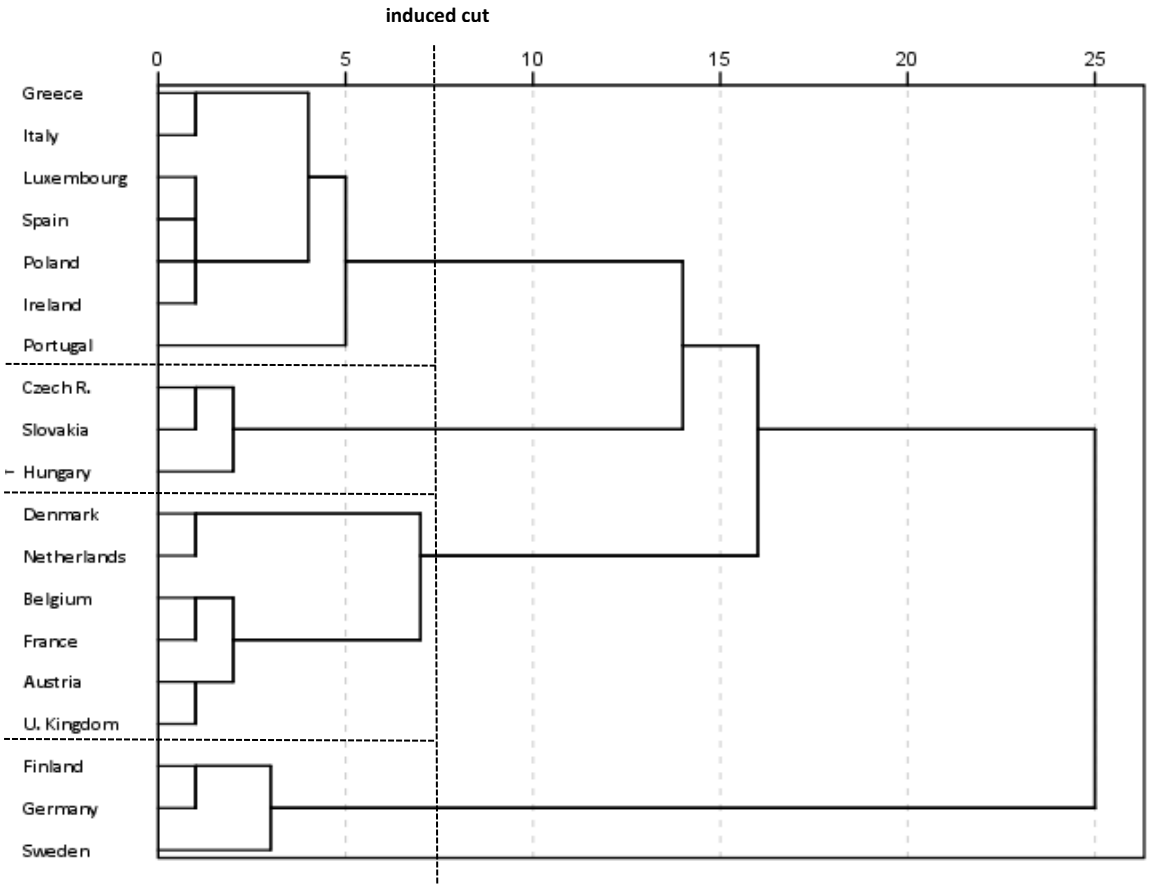
The result of the hierarchical cluster analysis is shown in Figure 1. The dendrogram can be read from left to right. Different countries are merged together in a step-by-step process; subsequently, clusters emerge. Countries with very similar scores in the three indexes are first combined with each other (e.g. Greece and Italy). At the beginning of the fusion, cases merge relatively constantly. Thereafter, the distance to the next fusion increases sharply. Therefore, a four-cluster solution is suitable for the *k*-means cluster analysis.

The *k*-means cluster analysis offers the possibility of testing a diverging number of clusters. Table 4 presents five different *k*-means cluster solutions with predefined start numbers of two, three, four, five and six clusters. In addition, each case's distance to each final cluster centre is specified.

Overall, it appears that the four-cluster solution is appropriate. Beyond the four clusters, there is no distinct fifth or sixth cluster of multiple countries; rather, single countries form separate clusters (five clusters: Portugal; six clusters: Portugal and Sweden). For the three-cluster solution, a large cluster (Cluster 1) forms. The results with two or three clusters have large and

inappropriate intracluster heterogeneity, measured as the cases' distances to their cluster centres.

Figure 1: Dendrogram of a hierarchical cluster analysis



Agglomerative method: Ward Linkage; Squared Euclidean Distance

Second, Table 4 presents the cases' stability (or lack thereof). Most of the countries are stable in their cluster position, but there are exceptions. Denmark is in a different cluster for the five-cluster solution than for the other solutions; Belgium has a different position for each solution with between three and six clusters; and the Netherlands is in a different cluster for the two-cluster solution than in the other solutions. Both Denmark and Belgium were also clustered differently in the hierarchical cluster analysis.

Denmark appears to be on a border between two clusters. In the hierarchical cluster, Denmark is closest to the Netherlands, and these two cases are merged with a cluster consisting of Belgium, France, Austria and the United Kingdom. However, in the *k*-means analysis, Denmark's position is closer to the final cluster centre of Cluster 4 than that of Cluster 3. Belgium seems relatively discontinuous and switches between three different options. Rather than being a borderline case, Belgium's appropriate classification seems to be unclear.

Table 4: K-means clusters

Two clusters			Three clusters			Four clusters			Five clusters			Six clusters		
K	**Country**	**Distance**	**K**	**Country**	**Distance**	**K**	**Country**	**Distance**	**K**	**Country**	**Distance**	**K**	**Country**	**Distance**
1	Austria	1.221	**1**	Austria	1.062	**1**	Greece	1.034	**1**	Portugal	.000	**1**	Portugal	.000
	Belgium	.437		Belgium	.783		Ireland	.712						
	Czech R.	1.017		France	.512		Italy	.755	**2**	Greece	1.044	**2**	Belgium	1.015
	France	.565		Greece	1.270		Luxembourg	.938		Ireland	.618		Greece	.980
	Greece	1.013		Ireland	1.165		Poland	.805		Italy	.814		Ireland	.779
	Hungary	2.025		Italy	.977		Portugal	1.690		Luxembourg	.919		Italy	.722
	Ireland	1.391		Luxembourg	.924		Spain	.566		Poland	.549		Luxembourg	.973
	Italy	.686		Netherlands	1.846					Spain	.489		Poland	.584
	Luxembourg	1.295		Poland	.621	**2**	Belgium	.871					Spain	.561
	Poland	1.028		Portugal	2.218		Czech R.	.653	**3**	Belgium	.871			
	Portugal	2.066		Spain	.649		Hungary	1.083		Czech R.	.653	**3**	Czech R.	.849
	Slovakia	1.682		U. Kingdom	1.759		Slovakia	.631		Hungary	1.083		Hungary	.925
	Spain	1.010								Slovakia	.631		Slovakia	.410
	U. Kingdom	1.879	**2**	Czech R.	.849	**3**	Austria	.215						
				Hungary	.925		France	.844	**4**	Austria	.469	**4**	Austria	.215
2	Denmark	.831		Slovakia	.410		Netherlands	.897		Denmark	1.472		France	.844
	Finland	.694					U. Kingdom	.704		France	1.024		Netherlands	.897
	Germany	.388	**3**	Denmark	1.201					Netherlands	.612		U. Kingdom	.704
	Netherlands	1.717		Finland	.623	**4**	Denmark	1.201		U. Kingdom	.979			
	Sweden	1.755		Germany	.205		Finland	.623				**5**	Denmark	.853
				Sweden	1.339		Germany	.205	**5**	Finland	.655		Finland	.653
							Sweden	1.339		Germany	.523		Germany	.348
										Sweden	1.019			
												6	Sweden	.000

Rounded to 3 decimal places

Further conclusions

According to Schendera (2010, 131) the interpretability is the most important criterion of a good cluster solution. Table 5 presents the values for the final cluster centres of the *k*-means analysis with a predefined number of four. Each cluster centre shows its relative value compared with other cluster centres. In addition, and in a broader sense in line with Waldschmidt (2009, 20), the relative expression is also shown in X values. This design, which is inspired by Waldschmidt (2009, 20), refers to the quantitative data of the cluster centres. The cluster group with the highest relative expression receives XXXX, and the one with the lowest receives X. This approach is ambiguous in the case of the civil rights dimension between Cluster 1 and Cluster 3. On the one hand, the values are close together, and on the other the descending order would change if Denmark, a borderline case, was assigned to Cluster 3. Therefore, in the civil rights dimension, Cluster 1 and Cluster 3 are considered to be equal.

Table 5: K-means final cluster centres, k=4

Z-score	*Cluster 1* Greece, Ireland, Italy, Luxembourg, Poland, Portugal, Spain	*Cluster 2* Czech Republic, Hungary, Slovakia, Belgium	*Cluster 3* Austria, France, Netherlands, United Kingdom	*Cluster 4* Finland, Sweden, Germany, Denmark
Social protection	0.00 (XXX)	- 0.36 (XX)	- 0.94 (X)	1.31 (XXXX)
Labour market integration	- 0.93 (X)	- 0.32 (XX)	0.74 (XXX)	1.21 (XXXX)
Civil rights	0.23 (XXx)	- 1.49 (X)	0.10 (XXx)	0.98 (XXXX)

XXXX: Cluster with highest score within the cluster centres; X: Cluster with lowest score

In Table 5, the first cluster includes Southern European and Catholic countries: Greece, Ireland, Italy, Luxembourg, Poland, Portugal and Spain. All of the Southern European countries included in the analysis are in this cluster. This cluster is characterized by an emphasis on social protection rather than labour-market integration. The second cluster provides moderate social security, moderate activating and few rights safeguards. The second cluster includes the Czech Republic, Hungary and Slovakia, which could thus be called an Eastern European cluster. Cluster 3 provides little social protection, high activating and average rights safeguards. This cluster includes three countries of the conservative-corporatist (or Central European) welfare type: Austria, France and the Netherlands. The United Kingdom is also clustered with these countries. Finally, the fourth cluster encompasses a high value for all three dimensions of disability policy, without trade-off between the different types of disability policy. The fourth cluster contains the three Nordic countries and Germany, and Denmark strongly leans towards the third cluster and needs to be considered as a borderline case. This cluster can be seen as the social-democratic or Nordic model of disability policy. To complete the picture, Belgium has to be mentioned; it is indistinguishable due to ambiguous positioning in the cluster analysis.

Discussion

Detection of disability models

The most striking result to emerge from the data is the detection of four distinct models of disability policy in European capitalist welfare states. Each of them has a different pattern of combining the social protection, labour-market integration and civil rights. Although welfare regime patterns are visible in the results, a significant number of countries are not clustered as they would be expected to in the traditional welfare state theory. The cluster with the Southern European countries includes three other countries that have different welfare traditions. Interestingly, Ireland, Luxembourg and Poland are traditionally Catholic countries. It is possible to hypothesize that the low occurrence of disability labour-market integration could be a residual effect of a Catholic economic tradition (for example, Weber [1904–1905] 2001). Furthermore, in contrast to its positioning in welfare state theory, the United Kingdom is clustered with Central European countries. This may be understandable with regard to the convergence between the liberal and conservative-corporatist forms of disability labour-market integration (OECD 2010, 90). In addition, in contrast to earlier findings and reasoning – which suggested that the United Kingdom is an ideal version of a liberal welfare regime that has advanced, rights-based policies (Barnes 2000; Waldschmidt 2009) – the United Kingdom does not have remarkably high values in the civil rights index. In fact, the United Kingdom's results show a discrepancy between anti-discrimination and accessibility. While the nation's two indicators of anti-discrimination have high values, the United Kingdom is near the European average regarding values for self-reported problems of accessibility. Because Ireland is in a Southern European cluster and the United Kingdom is in a Central European cluster, it is understandable that this cluster analysis indicates a four-cluster solution without a distinct liberal model instead of a five-cluster solution. Lastly, one exception with regard to welfare-state theory has to be mentioned. In line with the OECD's (2010, 88) analysis, Germany's disability policy is clustered in the social-democratic cluster.

Limitations

Some facts have to be mentioned about the type of data used for the modelling approach (OECD 2010, 99–102). First, the data on social protection capture the formal eligibility and not the actual level of disability social spending. Therefore, this leads to a view that differs from studies in which spending is considered (for example, Maschke 2008; Priestley 2010). Second, the data for labour-market integration exclusively operationalize policy instruments for integration into a formal and paid labour market and therefore do not cover informal or unpaid work. Third, it should be noted that the data from the OECD (2010, 99–102) capture the year 2007. The picture these data create is therefore a pre-crisis picture. This is especially important because the financial crisis, the Great Recession and the turning to austerity may have changed countries' political economies. This could especially be the case for countries in the first cluster. According to Josifidis et al. (2015), Portugal and Greece have already left their institutionalized welfare traditions due to the economic crisis and the impact of the Troika (consisting of the European Central Bank, the International Monetary Fund and the European Commission). Furthermore, there is evidence for a recent convergence in disability policy (Scharle, Váradi, and Samu 2015). Further, the examination is a pre-United Nations Convention on the Rights of Persons with Disabilities analysis: the Convention (for example,

United Nations Human Rights Office of the High Commissioner 2014) will most likely have an impact on all the three dimensions.

Limitations from a disability studies standpoint must also be mentioned. Both index building and cluster analysis strongly reduce the complexity of the chosen topic. Because of this reduction, it is not possible to capture the complexity of disabled people's experiences and the impact of policies on the daily life of people, nor is it possible to capture any kind of disability-policy discourse and the approach is quite distant from the reality of disability in its construction. An example of this is Malta, the country with the highest index value. First, the question needs to be asked: is the high value of the index interlinked with the Maltese policy of promoting accessible tourism (Callus and Cardona 2013)? It is even more important to consider that, in Malta, disabled people still face considerable barriers to full inclusion (Cardona 2013). Therefore, countries with a high position in the index do not have to be regarded as an example of 'the end of history', because further improvements and greater involvement of the disability movement are still needed. Rather, the index can be read as an indicator that positive developments (e.g. in the Maltese context: the implementation of an anti-discrimination act in 2000 or changes in disability mainstreaming outlined by Cardona [2013, 279–280]) seem to be lacking in other cases, such as that of Hungary, and that such developments may need intensified political attention. This scepticism can be applied for the OECD (2010) data as well. To frame the limitation from a disability studies standpoint, Jolly's (2003) dichotomy is very helpful: with the applied data, one can detect macroeconomic but not micro-psychological power relations (2003, 521).

Implementations for disability policy-making

With regard to macroeconomic power in the political economy, one result is worth mentioning. According to Esping-Andersen (1990), the welfare state has a significant impact on social stratification, and the social-democratic countries have the strongest historic commitments to reducing social inequalities. It is very striking to detect these effects on disability policy: the countries in the fourth cluster are among the top European countries with regard to all three dimensions. It can be concluded that attempts to reduce social inequalities for people with impairments do not imply any trade-offs between welfare and labour-market integration or between redistributive and rights-based policy approaches. Rather, it shows that a commitment to the development and maintenance of all three disability-policy dimensions is possible. This finding could be fruitful for both national and supranational disability policy-making.

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